

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Wright J. Nee

Serial No.: 09/903,131

Filed: July 11, 2001

Group Art Unit: 2614

Confirmation No.: 9531

For: AUTOMATIC BROADCAST CHANNEL TUNING
APPARATUS AND METHOD

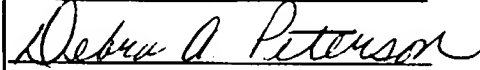
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Debra A. Peterson

**APPEAL BRIEF IN SUPPORT OF APPEAL
FROM THE PRIMARY EXAMINER TO THE BOARD OF APPEALS**

This is an appeal of a Final Rejection of claims 1 and 3-41 of Application Serial
Number 09/903,131 filed July 11, 2001. This brief is being submitted pursuant to
37 C.F.R. 1.192. A Notice of Appeal was filed on March 17, 2008.

1. Real Party in Interest

International Business Machines Corporation is the real party in interest.

2. Related Appeals and Interferences

There are no related appeals or interferences pending with this application.

3. Status of Claims

Appellants appeal from the rejection in the December 26, 2007 Office Action of claims 1 and 3-41. The claims on appeal are set forth in Appendix A.

4. Status of Amendments

No amendments were filed subsequent to the final rejection of December 26, 2007.

5. Summary of Claimed Subject Matter

Appellant is appealing from the Examiner's rejection of claims 1 and 3-41. Claim 1 is an independent claim. Claims 3 and 4 depend directly from claim 1. Claims 5-9 depend directly from claim 4. Claims 10-18 depend directly from Claim 1. Claims 19 and 20 depend directly from claim 18. Claims 21-29 depend directly from Claim 20. Claims 30 and 31 depend directly from Claim 29. Claims 32-34 depend directly from Claim 1. Claim 35 is an independent claim. Claims 36-41 depend directly from Claim 35.

The present invention discloses an apparatus and method in which a user can select a set of broadcast channels based on the user's current location and other preferences (Specification, page 4, lines 5-7).

In compliance with 37 C.F.R. § 41.37c(1)(v), a concise explanation of the subject matter defined in independent claims 1 and 35, including references to the specification by page and line number, and to the drawings follow.

As stated in Claim 1, the present invention provides an apparatus for selecting broadcast signals (Specification, page 4, lines 5-7). A first element of the apparatus is a tuner for receiving a plurality of AM/FM broadcast signals having multiple formats from a plurality of AM/FM broadcast sources. Support for this element can be found in the Specification, page 7, lines 5-6, and in Figure 1, elements 12 and 22. The apparatus further provides a memory, the memory storing: 1) a current location of the receiver; 2) a local database of AM/FM broadcast sources for a plurality of AM/FM broadcast locations; and 3) a set of listener preferences. Support for this element can be found in the Specification, page 8, lines 6-8 and Figure 1, element 26 (for the memory), Specification, page 8, lines 18-19, and Figure 1 element 34 (for current location of the receiver), Specification, page 8, lines 26-30, and Figure 1, element 32 (for the database of broadcast sources); and Specification, page 9, lines 4-7, and Figure 1, element 28 (for the set of listener preferences). The apparatus further provides a processor coupled to the tuner and the memory for selecting a group of live AM/FM broadcast signals from the plurality of live AM/FM broadcast signals having multiple program formats based on a predetermined selection criteria and the local database of AM/FM broadcast sources for a plurality of AM/FM broadcast locations, the predetermined selection criteria including

the plurality of receivable AM/FM broadcast signals, the current location of the receiver, and the set of listener preferences. Support for this element can be found in the Specification, page 8, lines 6-16, and Figure 1, element 36.

As stated in Claim 35, the present invention further provides a method for selecting broadcast signals on a receiver (Specification, page 4, lines 5-7). The method of claim 35 begins by creating a set of user preferences. Support for this step can be found in the Specification on page 15, lines 13-14, and Figure 3, element 304. Next, the method of claim 35 loads the set of user preferences and a database of AM/FM broadcast sources and program formats into a local database on the receiver. Support for this step can be found in the Specification on page 15, lines 23-25, and Figure 3, element 306. Next, the method of claim 35 determines a location for the receiver. Support for this step can be found in the Specification on page 16, lines 1-10, and Figure 3, element 308. Next, the method of claim 35 receives a plurality of live AM/FM broadcast channels having multiple program formats from the plurality of broadcast services. Support for this step can be found in the Specification on page 16, lines 12-13, and Figure 3, element 310. Next, the method of claim 35 searches the database of AM/FM broadcast sources and program formats based on the location of the receiver. Support for this step can be found in the Specification on page 16, lines 13-15, and Figure 3, element 312. Next the method of claim 35 creates one or more groups of live AM/FM broadcast channels identified by the search based on the set of user preferences, wherein each of the one or more groups of live AM/FM broadcast channels correspond to one or more program formats. Support for this step can be found in the Specification on page 16, lines 24-25, and Figure 3, element 314. Finally, the method of claim 35 concludes by presenting the one or more groups of AM/FM broadcast channels to the user. Support for this step can be found in the Specification on page 17, lines 5-6, and Figure 3, element 316.

6. Grounds of Rejection to be Reviewed on Appeal

The Examiner has rejected claims 1 and 3-41 under 35 U.S.C. § 103(a) as being unpatentable over Lee et al., U.S. Patent 6,374,177 (hereafter Lee), in view of Marrah et al., U.S. Patent 6,728,522 B1 (hereafter Marrah), in view of De Bonet et al., U.S. Patent 6,985,694 B1 (hereafter De Bonet), and further in view of Morita et al., U.S. Patent 5,864,753 (hereafter Morita). The issue is whether the Examiner is correct in asserting that claims 1 and 3-41 are obvious under 35 U.S.C. §103(a) over Lee in view of Marrah, in view of De Bonet, and further in view of Morita.

7. Argument

Rejection under 35 U.S.C. § 103(a)

Independent claims 1 and 35 both claim “a local database of AM/FM broadcast sources for a plurality of AM/FM broadcast locations” residing within the memory of the device. The Examiner concedes on page 4 of the current Office Action that the Lee, Marrah and De Bonet references do NOT specifically disclose a local database of AM/FM broadcast sources for a plurality of broadcast locations, as claimed by the present invention. The Examiner goes on to state that Morita, however, does disclose a local database of AM/FM broadcast sources for a plurality of broadcast locations, citing (col. 2, lines 1-11; col. 2, lines 32-43; col. 3, lines 14-28; col. 4, lines 16-38; and col. 4, lines 48-54).

Appellant respectfully submits that the “database of AM/FM broadcast sources” described in Morita et al. is clearly not local to the receiver itself, instead it resides at a base station remote from the vehicle receiver. This can clearly be seen in Figure 1, where

database 210 is shown to reside in base station 200, which is remotely located from the radio receiver 16 of the vehicle. In contrast to Morita et al., in the present invention, the database of program sources 32 resides within the memory 26 of the receiver 12, as shown in Figure 1. Thus, the database of the present invention is “local” to the receiver itself, enabling all database searches to be conducted within the receiver, with no reliance on external databases, devices or communications hardware to dispatch and perform the search. By contrast, Morita et al. requires a controller 14 to send a current position of the vehicle from the navigation unit 20 to a remote base station 200 via a vehicle telephone line (col. 3, lines 37-39, and 21-22). The base station 200 receives the data from the vehicle 100, retrieves a program table from the database 210 in accordance within the request message and the current position of the vehicle 100, and provides the vehicle 100 with data concerning the broadcasting time of the requested program and a frequency of a radio station offering the program (col. 3, lines 48-55).

Thus, the “database of AM/FM broadcast sources” 210 of Morita et al. is not local to the memory of the device itself, as claimed in claims 1 and 35 of the present invention. Instead, the database resides in a separate base station remote to the device and vehicle. Since none of the references cited by the Examiner disclose not suggest “a local database of AM/FM broadcast sources for a plurality of AM/FM broadcast locations” residing within the memory of the device as claimed by the present invention, Appellant respectfully submits that claims 1 and 35 of the present invention are patentably distinct from the cited references, and should be passed to issuance.

Claims 3-34 and 36-41 depend, either directly or indirectly from claims 1 and 35, which for reasons stated above, are now submitted as allowable over the cited art. Therefore, Appellant respectfully submits that claims 3-34 and 36-41 should allow be passed to issuance.

Appellant's Response to Examiner's "Response to Arguments" in 12/26/07 Final Office Action

In section 26 of the Final Office Action of 12/26/2007, the Examiner states the following:

“...the claims do not recite the “database of AM/FM broadcast sources” as being local to the receiver itself. The claims merely recite “a local database of AM/FM broadcast sources for a plurality of AM/FM broadcast locations” There is no indication as to where the database is located, or it’s location in regards to the receiver.”

Appellant respectfully disagrees with this assertion. It is very clear from the structure of claim 1 and the specification that the “local database of AM/FM broadcast sources for a plurality of AM/FM broadcast locations” (Fig. 1, element 32) resides within a memory (Fig. 1, element 36), which, in turn, resides within the receiver apparatus (Fig. 1, element 12) itself.

As described in the Specification, page 7, lines 21-22, “Receiver 12 is any device capable of receiving a group of broadcast signals from a plurality of broadcast sources.” As further stated on page 8, lines 6-8, “Receiver 12 further includes a memory 26 for storing both program code suitable for execution by a processor, as well as additional data structures required by the processor in controlling the operation of the receiver.” Page 8, lines 26-28 of the Specification further states, “Memory 26 further includes a database of broadcast sources 32. In its simplest form, database of program sources includes a station identifier, a station format, and a station location.”

Claim 1 of the present invention clearly parallels what is shown in Fig. 1 of the present invention. Claim 1 describes an “apparatus for selecting broadcast signals” shown as receiver 12 in Figure 1. The apparatus of claim 1 includes three major elements: a tuner (shown as frequency tuner 22 within Figure 1), a memory (shown as memory 26 within Figure 1), and a processor (shown as processor 36 within Figure 1). The memory further includes three elements: a current location of the receiver (shown as receiver location parameter 34 within Figure 1), a local database of AM/FM broadcast sources for a plurality of AM/FM broadcast locations (shown as database of program sources 32 within Figure 1), and a set of listener preferences (shown as listener preferences 28 within Figure 1).

Thus, the specification, claims and drawings of the present invention clearly and unambiguously show that the “local database of AM/FM broadcast sources for a plurality of AM/FM broadcast locations” resides within the receiver apparatus of the present invention.

8. Claims Appendix

1. An apparatus for selecting broadcast signals, the apparatus comprising:
 - a tuner for receiving a plurality of live AM/FM broadcast signals having multiple program formats from a plurality of AM/FM broadcast sources;
 - a memory, the memory including:
 - a current location of the receiver;
 - a local database of AM/FM broadcast sources for a plurality of AM/FM broadcast locations;
 - a set of listener preferences; and
 - a processor coupled to the tuner and the memory for selecting a group of live AM/FM broadcast signals from the plurality of live AM/FM broadcast signals having multiple program formats based on a predetermined selection criteria and the local database of AM/FM broadcast sources for a plurality of AM/FM broadcast locations, wherein the predetermined selection criteria includes the plurality of receivable AM/FM broadcast signals, the current location of the receiver, and the set of listener preferences.
2. (Cancelled)
3. The apparatus of claim 1, wherein the local database of AM/FM broadcast sources further includes program formats for the plurality of AM/FM broadcast locations.
4. The apparatus of claim 1, wherein the current location of the receiver is entered by the listener.

5. The apparatus of claim 4, wherein the current location entered by the listener is a zip code.
6. The apparatus of claim 4, wherein the current location entered by the listener is a city code.
7. The apparatus of claim 4, wherein the current location entered by the listener is a city name.
8. The apparatus of claim 4, wherein the current location entered by the listener is entered via a keypad integral to the apparatus.
9. The apparatus of claim 4, wherein the current location entered by the listener is entered via voice input.
10. The apparatus of claim 1, wherein the current location of the receiver is provided by a global positioning system (GPS) receiver integral to the apparatus.
11. The apparatus of claim 1, wherein the current location of the receiver is provided by a global positioning system (GPS) receiver external to the apparatus.
12. The apparatus of claim 1, wherein the current location of the receiver is provided by a cellular phone integral to the apparatus.
13. The apparatus of claim 1, wherein the current location of the receiver is provided by a cellular phone external to the apparatus.

14. The apparatus of claim 1, wherein the local database of AM/FM broadcast sources is provided to the receiver by a removable memory module.
15. The apparatus of claim 1, wherein the local database of AM/FM broadcast sources is provided to the receiver by a CD-ROM disc.
16. The apparatus of claim 1, wherein the local database of AM/FM broadcast sources is provided to the receiver by a CD-RW disc.
17. The apparatus of claim 1, wherein the local database of AM/FM broadcast sources is provided to the receiver by a writable DVD.
18. The apparatus of claim 1, wherein the apparatus further includes an I/O port for transferring information from an external device to the apparatus.
19. The apparatus of claim 18, wherein the external device is coupled to the I/O port via a wired connection.
20. The apparatus of claim 18, wherein the external device is coupled to the I/O port via a wireless connection.
21. The apparatus of claim 20, wherein the wireless connection is an RF connection.
22. The apparatus of claim 20, wherein the wireless connection is an IR connection.

23. The apparatus of claim 20, wherein the external device is a personal digital assistant (PDA).
24. The apparatus of claim 20, wherein the external device is a personal computer (PC).
25. The apparatus of claim 20, wherein the external device is a wireless phone.
26. The apparatus of claim 20, wherein the transferred information includes the current location of the receiver.
27. The apparatus of claim 20, wherein the transferred information is passed between two or more external devices prior to being passed to the I/O port of the apparatus.
28. (Original) The apparatus of claim 20, wherein the transferred information includes the database of broadcast sources and program formats.
29. The apparatus of claim 20, wherein the transferred information includes the set of user preferences.
30. The apparatus of claim 29, wherein the set of user preferences includes favorite program formats.
31. The apparatus of claim 29, wherein the set of user preferences includes specific program choices.

32. The apparatus of claim 1, wherein the local database of AM/FM broadcast sources comprises a plurality of broadcast source entries, each of the plurality of broadcast source entries comprising: a station identifier, a station format, and a station location.
33. The apparatus of claim 1, wherein the receiver is mounted within a mobile vehicle.
34. The apparatus of claim 1, wherein the receiver is a hand-held device.
35. A method for selecting broadcast signals on a receiver, the method comprising:
creating a set of listener preferences;
loading the set of listener preferences and a database of AM/FM broadcast sources and program formats into a local database on the receiver;
determining a location of the receiver;
receiving a plurality of live AM/FM broadcast channels having multiple program formats from a plurality of AM/FM broadcast services;
searching the local database of AM/FM broadcast sources and program formats based on the current location of the receiver;
creating one or more groups of live AM/FM broadcast channels identified by the search based on the set of listener preferences, wherein each of the one or more groups of live AM/FM broadcast channels correspond to one or more program formats; and
presenting the one or more groups of live AM/FM broadcast channels to the user.

36. The method for selecting broadcast signals of claim 35, wherein the step of determining the location of the receiver further includes:

receiving a global positioning service (GPS) signal; and
interpreting the GPS signal.

37. The method for selecting broadcast signals of claim 35, wherein the step of determining the location of the receiver further includes:

receiving a location signal via a cellular phone; and
interpreting the location signal.

38. The method for selecting broadcast signals of claim 35, wherein the step of determining the location of the receiver further includes:

receiving a location identifier code entered by a user; and
interpreting location identifier code.

39. The method for selecting broadcast signals of claim 35, wherein the step of searching the local database of AM/FM broadcast sources and program formats based on the location of the receiver further includes:

extracting a station location from each of a plurality of broadcast source entries residing within the local database of AM/FM broadcast sources and program formats;

comparing the station location with the location of the receiver to determine if the receiver is within receiving range of the broadcast source; and

building a list of receivable broadcast source records for all of the broadcast sources that are within receiving range.

40. The method for selecting broadcast signals of claim 35, wherein the predetermined grouping criteria includes program format.

41. The method for selecting broadcast signals of claim 35, wherein the step of presenting the one or more groups of live AM/FM broadcast channels to the user further includes the step of:

assigning the one or more groups of live AM/FM broadcast channels to one or more user selectable controls on the receiver.

42. (Cancelled)

9. Evidence Appendix

There is no evidence attached for this appeal.

10. Related Proceedings Appendix

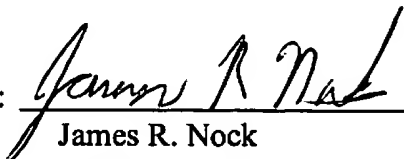
There are no related proceedings. Therefore, there are no copies of decisions rendered by a court of the Board attached here.

Appellant believes this appendix satisfies the requirements of 37 C.F.R. § 41.37(c)(x).

Respectfully submitted,

Date: March 19, 2008

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